Complete Summary

GUIDELINE TITLE

Concussion, mild head injury.

BIBLIOGRAPHIC SOURCE(S)

Concussion, mild head injury. Philadelphia (PA): Intracorp; 2005. Various p. [21 references]

GUIDELINE STATUS

This is the current release of the guideline.

All Intracorp guidelines are reviewed annually and updated as necessary, but no less frequently than every 2 years. This guideline is effective from July 1, 2005 to July 1, 2007.

COMPLETE SUMMARY CONTENT

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SCOPE

DISEASE/CONDITION(S)

Concussion, also referred to as a mild head injury

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Emergency Medicine
Family Practice
Neurology
Pediatrics

INTENDED USERS

Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Utilization Management

GUIDELINE OBJECTIVE(S)

To present recommendations for the diagnosis, management, and treatment of concussion that will assist medical management leaders to make appropriate benefit coverage determinations

TARGET POPULATION

Individuals with concussion

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Evaluation

1. Physical examination, history, and assessment of signs and symptoms
2. Diagnostic tests
    - Computed tomography (CT) scan
    - Magnetic resonance imaging (MRI)
3. Comprehensive physical/neurological/cognitive examination

Management/Treatment

1. Observation by a competent individual for a minimum of 24 hours at home or at a medical facility
2. Rest and activity moderation for 24 to 48 hours
3. Follow up exam 7 to 10 days post-injury
4. Follow the recommendations from the Intracorp guideline Traumatic Brain Injury if CT reveals a lesion
5. Referral to specialists

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Searches were performed of the following resources: reviews by independent medical technology assessment vendors (such as the Cochrane Library, HAYES); PubMed; MD Consult; the Centers for Disease Control and Prevention (CDC); the U.S. Food and Drug Administration (FDA); professional society position statements and recommended guidelines; peer reviewed medical and technology publications and journals; medical journals by specialty; National Library of Medicine; Agency for Healthcare Research and Quality; Centers for Medicare and Medicaid Services; and Federal and State Jurisdictional mandates.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Not Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not stated

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Delphi)

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

A draft Clinical Resource Tool (CRT or guideline) is prepared by a primary researcher and presented to the Medical Technology Assessment Committee or

the Intracorp Guideline Quality Committee, dependent upon guideline product type.

The Medical Technology Assessment Committee is the governing body for the assessment of emerging and evolving technology. This Committee is comprised of a Medical Technology Assessment Medical Director, the Benefit and Coverage Medical Director, CIGNA Pharmacy, physicians from across the enterprise, the Clinical Resource Unit staff, Legal Department, Operations, and Quality. The Intracorp Guideline Quality Committee is similarly staffed by Senior and Associate Disability Medical Directors.

Revisions are suggested and considered. A vote is taken for acceptance or denial of the CRT.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Diagnostic Confirmation

Subjective Findings

- History of:
  - Sports injury
  - Motor vehicle accident (MVA)
  - Fall
  - Assault
  - Trauma to head
- Headache
- Somnolence
- Altered sensorium
- Fatigue

- Nausea and vomiting

Objective Findings

- Amnesia
- Change in mental status
    - Witnessed or reported loss of consciousness (LOC)
- Objective findings at area of injury:
    - Ecchymosis
    - Contusion
    - Laceration
- Point tenderness or swelling
- New focal neurologic finding (e.g., altered vision, hearing, sensation)
- Vomiting
- Changes in pupil reactivity are a red-flag finding for more significant intracranial injury.

Diagnostic Tests

- Computed tomography (CT) scan; when loss of consciousness has occurred
- Magnetic resonance imaging (MRI) is appropriate in cases where CT is not diagnostic or in cases of suspected vascular compromise.
- See the Intracorp guideline Imaging: Brain and Skull

Differential Diagnosis

- Hypoglycemia
- Diabetic ketoacidosis (DKA)
- Hyponatremia
- Hypothyroidism
- Hypercalcemia, hypocalcemia
- Stroke (see the Intracorp guideline Cerebral Aneurysm)
- Myocardial infarction (see the Intracorp guideline Myocardial Infarction)
- Acute dysrhythmias
- Severe depressive catatonia
- Substance abuse (drugs, alcohol)
- Other causes of headache and/or neurological deficits
    - Migraine (see the Intracorp guideline Migraine)
    - Subarachnoid hemorrhage (see the Intracorp guideline Stroke, CVA)
    - Subdural/epidural hematoma (see the Intracorp guideline Traumatic Brain Injury)

Treatment

Treatment Options

- Treatment options depend on whether there is any evident damage to the brain on CT scan.
    - If CT reveals a lesion, treat appropriately (see the Intracorp guideline Traumatic Brain Injury).

- If no lesion seen, the patient needs to be observed by a competent individual for a minimum of 24 hours at home. If there is no one to assume that role, the patient should be observed at a medical facility.
- Administer comprehensive physical/neurological/cognitive examination.
- Encourage rest and activity moderation for 24 to 48 hours.
- Follow up exam 7 to 10 days post-injury

Duration of Medical Treatment

- Medical - Optimal: 1 day(s), Maximal: 28 day(s)

Additional information regarding primary care visit schedules, referral options, and specialty care is provided in the original guideline document.

The original guideline document also provides a list of red flags that may affect disability duration, and return to work goals, including

- Without loss of consciousness, confusion or amnesia
- With loss of consciousness, confusion or amnesia
- After resolution of loss of consciousness, confusion, amnesia
- After surgery

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate diagnosis, management, and treatment of concussion that assist medical management leaders to make appropriate benefit coverage determinations

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

State jurisdictional guidelines may supersede the recommendations of this guideline.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Timeliness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2005

GUIDELINE DEVELOPER(S)

Intracorp - Public For Profit Organization

SOURCE(S) OF FUNDING

Intracorp

GUIDELINE COMMITTEE

CIGNA Clinical Resources Unit (CRU)
Intracorp Disability Clinical Advisory Team (DCAT)

Medical Technology Assessment Committee (MTAC)
Intracorp Guideline Quality Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Policies and procedures. Medical Technology Assessment Committee Review Process. Philadelphia (PA): Intracorp; 2004. 4 p.
- Online guideline user trial. Register for Claims Toolbox access at www.intracorp.com.

Licensing information and pricing: Available from Intracorp, 1601 Chestnut Street, TL-09C, Philadelphia, PA 19192; e-mail: lbowman@mail.intracorp.com.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on August 10, 2005. The information was verified by the guideline developer on August 31, 2005.

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